

AMENDMENTS TO THE DRAWINGS

The attached replacement sheet(s) of drawings includes changes to Fig. 24, "Small frame domain" has been amended to --Small frame region--.

REMARKS

Claims 1-35 are pending in the application.

Drawings

A minor change has been made to Fig. 24 so that it is consistent with the description in the specification.

The Examiner is respectfully requested to approve and enter this drawing change.

Specification and Claims

The title of the invention has been objected to because it is not descriptive.

In view of this, the title of the invention has been amended to --Focus Lens Position Controlling Device and Method Therefore-- to overcome this objection.

The Examiner is respectfully requested to reconsider and withdraw this objection.

Minor changes have been made to the specification to place it in better form for U.S. practice.

Further, minor changes have been made to the pending claims, without affecting the scope thereof, to place them in better form for U.S. practice.

Claim Rejections - 35 U.S.C. § 102

Claims 1-5, 8/2-5, 10, 11/(1-5, 10), 14-16, 25, and 28 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Iijima et al. (USP 6,271,883). This rejection is respectfully traversed.

(Independent Claims 1, 10, 14, and 15)

Claim 1 has been amended to claim:

an acquirer that acquires information relating to a lens position of a peak focus, said information indicating a focus lens position at which an integration value of said high-frequency component (i.e., AF evaluation value) in a predetermined area in said frame assumes a peak;

a storage that stores information relating to the distribution of high-frequency components (of images) (i.e., information indicating distribution of high-frequency components before integration) at the focus lens position indicated by the information relating to the lens position of the peak focus, the information relating to the distribution of high-frequency components being correlated with the information relating to the lens position of the peak focus acquired by the acquirer;

an acquirer that acquires selection information indicating which information relating to the distribution of high-frequency components stored by the storage is selected based on the information relating to the distribution of high-frequency components stored by the storage; and

a determinator that determines, when a plurality of information relating to the lens position of the peak focus have been acquired, the imaging lens position, the focus lens position for imaging, based on the information relating to the lens position of the peak focus correlated with the information relating to the distribution of high-frequency components and stored in the storage (*emphasis added*)

Independent claims 10, 14, and 15 have also amended in a similar manner. The claimed feature is disclosed at least in Figs. 2, 5, 12, 13, 14 of the present application.

In the Office Action, the Examiner refers to col. 3, lines 18-32 of the Iijima reference and alleges that it discloses the claimed “acquirer for selection information,” as recited in claim 1.

However, Iijima merely states:

In order to achieve the above object, according to another preferred aspect of the present invention, there is disclosed an automatic focus detection apparatus comprising: filter means for extracting a predetermined frequency component from an image pickup signal output from image pickup means; gate means for allowing only a signal

corresponding to a portion in a focus detection region in a photographing field to pass therethrough with respect to the output from the filter means; detection means for detecting a luminance signal component from the image pickup signal in the focus detection region; correction means for correcting a focus signal extracted by the gate means by the output from the detection means; and driving means for driving a focusing lens of an optical system to an in-focus point on the basis of the output signal from the correction means. (*emphasis added*)

Applicants submit that Iijima does not disclose or suggest determining, “when a plurality of information relating to the lens position of the peak focus have been acquired, the imaging lens position, the focus lens position for imaging, based on the information relating to the lens position of the peak focus correlated with the information relating to the distribution of high-frequency components and stored in the storage,” as recited in claim 1.

Claims 10, 14, and 15 are allowable at least for the similar reasons as stated in the foregoing with regard to claim 1.

(Independent Claims 16 and 25)

Claim 16 has been amended to claim:

an acquirer, which acquires an image signal from a large frame region in an imaging region and from a small frame region, which is a portion of the large frame region, in which the large frame region and the small frame region are correlated with a focus lens position (*emphasis added*)

Further, claim 25 has been amended to claim:

an acquirer, which acquires image signals from a large frame region in an imaging region, from a small frame region, which is a portion of the large frame region, and from a middle frame region, which includes said small frame region and is included in said

large frame region, in which the large frame region, the small frame region, and the middle frame region are correlated with a focus lens position . . . (*emphasis added*)

In other words, the claimed invention requires at least frame regions of different size. The claimed features are disclosed at least in Figs. 23-27, 29, and 30 of the present application.

In the Office Action, the Examiner refers to col. 6, lines 13-24 of the Iijima reference and alleges that it discloses the claimed “acquirer” of the present invention.

Iijima, however, merely states, in col. 6, lines 24-25:

A frame (or window) generator 54 sets frames such as focus detection regions on a photographing field.

Such fields are shown in Fig. 6 of the reference. However, the size of all of the fields is identical and does not disclose or suggest the “large frame region,” the “small frame region,” and the “middle frame region” of the present invention.

Therefore, Iijima fails to disclose or suggest the “acquire,” as recited in claims 16 and 25.
(Dependent claims)

The dependent claims rejected under this Section are allowable at least for their dependency on one of the independent claims.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Claim Rejections - 35 U.S.C. § 103

(a) Claims 6, 8/6, 11/6, and 17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Iijima in view of Mikami et al. (USP 5,067,161). This rejection is respectfully traversed.

Claims 6, 8/6, and 11/6, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

Claim 17, dependent on claim 16, is allowable at least for its dependency on claim 16.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 7/(2-5), 9, 11/9, 12/(1-5, 9, 10), 13/(1-5, 9, 10), 18-24, 26, 27, and 29-35 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Iijima in view of Official Notice. This rejection is respectfully traversed.

Claims 7/(2-5), 9, 11/9, 12/(1-5, 9, 10), 13/(1-5, 9, 10), 18-24, 26, 27, and 29-35 are allowable at least for their dependency on any one of independent claims.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Claims 7/6, 12/6, and 13/6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Iijima in view of Mikami, and further in view of Official Notice. This rejection is respectfully traversed.

Claims 7/6, 12/6, and 13/6, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and objections, and allowance of the pending claims are earnestly solicited.

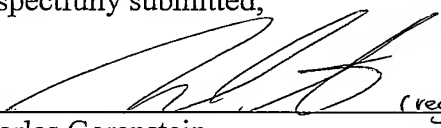
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi, Registration No. 40417 at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

Dated: July 16, 2010

Respectfully submitted,

ps

By  (reg. # 40,417)

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Attachment: Figure 24 (Replacement Sheet)